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PATENT
Attorney Docket No.: 27611/35996A

6P1619
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of: Rasenick *et al.*

Serial No.: 09/918,230

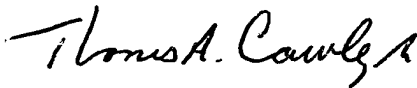
Filed: July 30, 2001

For: MARKER FOR
ANTIDEPRESSANT
THERAPY AND METHODS
RELATED THERETO

Group Art Unit: 1619

Examiner: TBA

) I hereby certify that this paper and the
) papers referred to as attached are being
) deposited with the United States Postal
) Service, as first class mail, postage
) prepaid, in an envelope addressed to the
) Commissioner of Patents, Washington,
) D.C. on February 15, 2002.

) 

) Thomas A. Cawley, Jr., Ph.D.

) Reg. No. 40,944

) Attorney for Applicant

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

In compliance with 37 C.F.R. §1.97 and the continuing duty of disclosure under 37 C.F.R. §1.56, the applicants call to the attention of the examiner the publications, listed on the attached Form PTO-1449, which may be considered material to the examination of the above-identified patent application. This information disclosure statement is being submitted before the mailing date of a first official action. Copies of the cited documents are enclosed herewith.

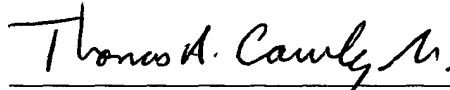
Documents C1, C4, C32 and C36 were cited in an international search report (copy enclosed herewith) in corresponding international application No. PCT/US01/23851.

An early and favorable action on the merits is solicited.

Respectfully submitted,

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By:



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Attorney for Applicants

February 15, 2002

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U.S. Department of Commerce
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U.S. PATENT DOCUMENTS

*Examiner Initials	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS

*Examiner Initials	Document Number	Publication Date	Country	Class	Subclass	Translation	
						Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

C1	Avissar <i>et al.</i> , "Interaction of Antibipolar and Antidepressant Treatments with Receptor-Coupled G Proteins," <i>Pharmacopsychiat.</i> , 25:44-50 (1992).
C2	Carlson, <i>et al.</i> , "Fractionation of the Beta Subunit Common to Guanine Nucleotide-Binding Regulatory Proteins with the Cytoskeleton," <i>Mol. Pharmacol.</i> , 30:463-468 (1986).
C3	Chen, <i>et al.</i> , "Chronic Antidepressant Treatment Facilitates G Protein Activation of Adenylyl Cyclase without Altering G Protein Content," <i>J. Pharm. Exp. Ther.</i> , 275:509-517 (1995).
C4	Chen, <i>et al.</i> , "Chronic Treatment of C6 Glioma Cells with Antidepressant Drugs Increases Functional Coupling Between a G Protein (G _s) and Adenylyl Cyclase," <i>J. Neurochem.</i> , 64:724-732 (1995).
C5	Cowburn, <i>et al.</i> , "Adenylyl Cyclase Activity and G-protein Subunit Levels in Postmortem Frontal Cortex of Suicide Victims," <i>Brain Res.</i> , 633:297-304 (1994).

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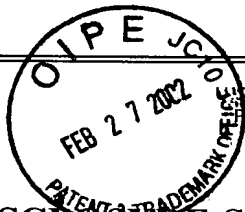
C6	De Montis, <i>et al.</i> , "Selective Adenylate Cyclase Increase in the Limbic Area of Long-term Imipramine-treated Rats," <i>Eur. J. Pharmacol.</i> , 180:169-174 (1990).
C7	Donati, <i>et al.</i> , "Chronic Treatment of C6 Glioma Cells with Antidepressant Drugs Results in a Redistribution of G α ," <i>Molecular Pharmacology</i> , 59:1426-1432 (2001).
C8	Duman, <i>et al.</i> , "A Molecular and Cellular Theory of Depression," <i>Arch. Gen. Psychiatry</i> , 54:597-606 (1997).
C9	Emamghoreishi, <i>et al.</i> , "Lack of Effect of Chronic Antidepressant Treatment of Gs and Gi Alpha-subunit Protein and mRNA Levels in the Rat Cerebral Cortex," <i>Neuropsychopharmacology</i> , 15:281-287 (1996).
C10	Jenkinson, <i>et al.</i> , "Two Affinities for a Single Antagonist at the Neuronal NK1 Tachykinin Receptor: Evidence from Quantitation of Receptor Endocytosis," <i>Br. J. Pharmacol.</i> , 126:131-136 (1999).
C11	Kuo, <i>et al.</i> , "Force of Single Kinesin Molecules Measured with Optical Tweezers," <i>Science</i> , 260:232-234 (1993).
C12	Lee, <i>et al.</i> , "Expression of G-protein Alpha Subunits of <i>Escherichia coli</i> ," <i>Methods Enzymol.</i> , 237:146-164 (1994).
C13	Li, <i>et al.</i> , "Evidence for a Regulated Interaction between Heterotrimeric G Proteins and Caveolin," <i>J. Biol. Chem.</i> , 270:15693-15701 (1995).
C14	Menkes, <i>et al.</i> , "Guanosine Triphosphate Activation of Brain Adenylate Cyclase: Enhancement by Long-Term Antidepressant Treatment," <i>Science</i> , 219:65-67 (1983).
C15	Neubig, R. R., "Membrane Organization in G-protein Mechanisms," <i>J. FASEB</i> , 8:939-946 (1994).
C16	Okamoto, <i>et al.</i> , "Caveolins, a Family of Scaffolding Proteins for Organizing 'Preassembled Signaling Complexes' at the Plasma Membrane," <i>J. Biol. Chem.</i> , 273:5419-5422 (1998).

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

C17	Ozawa, <i>et al.</i> , "Chronic Electroconvulsive Treatment Augments Coupling of the GTP-Binding Protein G _s to the Catalytic Moiety of Adenylyl Cyclase in a Manner Similar to That Seen with Chronic Antidepressant Drugs," <i>J. Neurochem.</i> , 56:330-338 (1991).
C18	Ozawa, <i>et al.</i> , "Coupling of the Stimulatory GTP-Binding Protein G _s to Rat Synaptic Membrane Adenylate Cyclase is Enhanced Subsequent to Chronic Antidepressant Treatment," <i>Mol. Pharm.</i> , 36:803-808 (1989).
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C21	Popova, <i>et al.</i> , "Muscarinic Receptor Activation Promotes the Membrane Association of Tubulin for the Regulation of Gq-Mediated Phospholipase C β_1 Signaling," <i>J. of Neuroscience</i> , 20:2774-2782 (2000).
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C23	Rasenick, <i>et al.</i> , "G Protein-Mediated Signal Transduction as a Target of Antidepressant and Antibipolar Drug Action: Evidence from Model Systems," <i>J. Clin. Psychiatry</i> , 57:49-55 (1996).
C24	Rasenick, <i>et al.</i> , "Guanine Nucleotide Activation of Adenylate Cyclase in Saponin Permeabilized Glioma Cells," <i>FEBS Letters</i> , 207:296-301 (1986).
C25	Rasenick, <i>et al.</i> , "Guanosine-5'-O-thiodiphosphate Functions as a Partial Agonist for the Receptor-independent Stimulation of Neural Adenylate Cyclase," <i>Brain Res.</i> , 488:105-113 (1989).
C26	Rasenick, <i>et al.</i> , "Specific Associations between Tubulin and G Proteins: Participation of Cytoskeletal Elements in Cellular Signal Transduction," <i>Adv. Second Messenger Phosphoprotein Res.</i> , 24:381-386 (1990).

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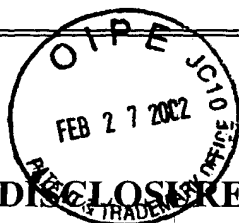
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C28	Regula, <i>et al.</i> , "Membrane Tubulin," <i>Ann. N.Y. Acad. Sci.</i> , 466:832-842 (1986).
C29	Roychowdhury, <i>et al.</i> , "G Protein α Subunits Activate Tubulin GTPase and Modulate Microtubule Polymerization Dynamics," <i>J. Biol. Chem.</i> , 274:13485-13490 (1999).
C30	Roychowdhury, <i>et al.</i> , "G Protein Binding and G Protein Activation by Nucleotide Transfer Involve Distinct Domains on Tubulin: Regulation of Signal Transduction by Cytoskeletal Elements," <i>Biochem.</i> , 32:4955-4961 (1993).
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C32	Senda <i>et al.</i> , "Alterations in the Detergent Extraction of G Protein from the Plasma Membrane From Postmortem Human Brains of Patients with Depression," Society for Neuroscience Abstracts, 26(1-2) : Abstract (2000); 30 th Annual Meeting of the Society of Neuroscience, New Orleans, LA, USA, November 4-9, 2000.
C33	Southwell, <i>et al.</i> , "Movement of Villi Induces Endocytosis of NK1 Receptors in Myenteric Neurons From Guinea-pig Ileum," <i>Cell Tissue Res.</i> , 292:37-45 (1998).
C34	Sulser, F., "Antidepressant Treatments and Regulation of Norepinephrine-receptor-coupled Adenylate Cyclase Systems in Brain," <i>Adv. Biochem. Psychopharmacol.</i> , 39:249-261 (1984).
C35	Takahashi, <i>et al.</i> , "Chronic Antidepressant Administration Increases the Expression of cAMP-Specific Phosphodiesterase 4A and 4B Isoforms," <i>J. of Neuroscience</i> , 19:610-618 (1999).
C36	Toki, <i>et al.</i> , "Treatment of C6 Glioma Cells and Rats with Antidepressant Drugs Increases the Detergent Extraction of G _{sa} from Plasma Membrane," <i>J. of Neurochem.</i> , 73:1114-1120 (1999).
C37	Wang, <i>et al.</i> , "Tubulin-G Protein Interactions Involve Microtubule Polymerization Domains," <i>Biochem.</i> , 30:10957-10965 (1991).

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C38	Yan, <i>et al.</i> , "Synaptic Membrane G Proteins Are Complexed with Tubulin in Situ," <i>J. of Neurochem.</i> , 66:1489-1495 (1996).
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C39	Yan, <i>et al.</i> , "Tubulin Stimulates Adenylyl Cyclase Activity in C6 Glioma Cells by Bypassing the β -Adrenergic Receptor: A Potential Mechanism of G Protein Activation," <i>J. of Neurochem.</i> , 76:182-190 (2001).
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